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Abstract

This final repcrt cf the Washingtcn State Vccaticnal Educaticn Research Coordinating Unit summarizes activities during the pericd frcm April 3, 1967 to August 31, 1969. The objectives cf the unit were to stimulate, encourage, and ccordinate vccaticnal educaticn research activities sc that the State might be more effective in meeting the special vccaticnal needs of youth and adults; to serve as an agency fcr the ccllecticn and dissemination cf vocaticnal infcrmation; and to provide assistance to all agencies ccncerned with research in vccaticnal education. The repcrt is organized according to the fcllcwing tcpical headings: summary; intrcducticn; methcds, including discreticnary award program, publications, dissemination activities, state-wide fcllcw-up system, and cther activities; results, conclusicns. (CH)

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FINAL REPORT

Project No. 7-0641

Grant No. OEG-4-7-070641-3124

WASHINGTON STATE VOCATIONAL EDUCATION RESEARCH COORDINATING UNIT

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VT009793

October 15, 1969

U.S. DEPARTMENT OF
HEALTH EDUCATION AND WELFARE

Office of Education
Bureau of Research

Final Report

Project No. 7-0641
Grant No. OEG-4-7-070641-3124

WASHINGTON STATE VOCATIONAL EDUCATION -- RESEARCH COORDINATING UNIT

George P. Pilant
Director, Research Coordinating Unit

Office of the Superintendent of Public Instruction

Olympia, Washington

October 15, 1969

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SUMMARY

The Washington State Vocational Education Research Coordinating Unit, Bureau of Research No. 7-0641, Grant No. OEG-4-7-070641-3124 was operational from April 3, 1967, through August 31, 1969, and was a continuation of an earlier project dating from June 1, 1965. The only full-time professional associated with the project was the director, who held that position from September, 1966, until the end of the grant period.

The objectives were to stimulate, encourage, and coordinate vocational education research activities in order that the State might be more effective in meeting the special vocational needs of youth and adults; to serve as an agency for the collection and dissemination of vocational information; and to provide assistance to all agencies concerned with research in vocational education.

Major activities included granting discretionary awards to educational agencies for research activities and subsequently monitoring and guiding these projects to completion. An information system was devised that made available to vocational educators approximately 1,000 volumes of vocational oriented materials and a complete file of ERIC microfiche. The director acted in a consultant capacity when called upon to do so, and participated in many workshops and conferences in order to enhance his capabilities to administer the units' several facets.

The RCU avoided the role of data bank or statistics unit in order to maintain a unique curriculum and instruction improvement posture. This position was achieved through the activities cited, and to the degree possible with limited personnel, incomplete communication links and budgetary constraints.

INTRODUCTION

The Research Coordinating Unit for Vocational Education in the Washington State Office of Public Instruction came into being through provisions of Public Law 88-210 and subsequent legislation. A proposal was submitted to the Director of the Occupational Research and Planning Program, United States Office of Education, May 10, 1965, for the establishment of such a unit.

The Research Coordinating Unit began officially June 1, 1965, as Project No. 5-0108, Contract No. OE-5-85-124, with authorization for the expenditures of $96,554 in Federal funds, supplemented by $5,100 in local funds. The termination date of the contract was November 30, 1966, subsequently extended to February 28, 1967. Prior to the expiration of the original contract, a new proposal was submitted.

After some delays the continuation of the RCU was assured as of April 3, 1967, as Bureau of Research Project No. 7-0641, Grant No. OEG-4-7-070641-3124. This grant for $75,000 was originally scheduled to expire October 31, 1968, but was extended through August 31, 1969, with additional Federal funds increasing the total Grant to $122,383.

Thus, the Research Coordinating Unit operated for 51 months under two contracts with the U.S. Office of Education, with a total budget of $218,937. The first six months of operation was on a very limited basis however, because of a lack of personnel. The present director was the first full time person associated with the project, employed as Coordinator in September 1966.

The RCU was created as a part of the Office of the Superintendent of Public Instruction, which at that time included vocational and community college education as well as elementary/secondary. Subsequently these three areas became separate entities with their own governing boards. Vocational education continued to be related to the other two in that the membership of the Coordinating Council for Occupational Education included three members each from the State Board of Education and the Community College Board. Three additional members were selected at large.

Just prior to the end of the contract supporting the RCU, further changes were made in the administrative structure of vocational education at the state level. Through contractual arrangements with the appropriate agencies, administration of secondary vocational education returned to the jurisdiction of the Superintendent of Public Instruction, and post-secondary became the responsibility of the community college system. These changes were made in part to meet Federal requirements under P.L. 90-576.

Throughout its existence, the RCU remained under the Superintendent of Public Instruction as a part of the Research Office. A close working relationship was maintained with non-vocational research personnel in that office. However, with the termination of this contract with the USOE, the RCU will become a part of the Planning and Research Section of

the Coordinating Council for Occupational Education. The Unit will continue to be housed with the Superintendent of Public Instruction Research Office and no immediate change in operational procedure is foreseen.

The RCU has always functioned with only one full time professional person on the staff. Budgetary limitations precluded expansion beyond part-time personnel and hiring occasional consultant services. This has, of course, limited the output of the Unit and pre-determined the nature of its activities to a great extent. Unless increased funds are forthcoming, future operation will probably not change.

Table I, following, shows the place of the RCU as originally conceived in 1965. Table II indicates the plan of organization under the just completed contract, and Table III is the proposed table of organization under P.L. 90-576.

ORGANIZATION - RESEARCH COORDINATING UNIT

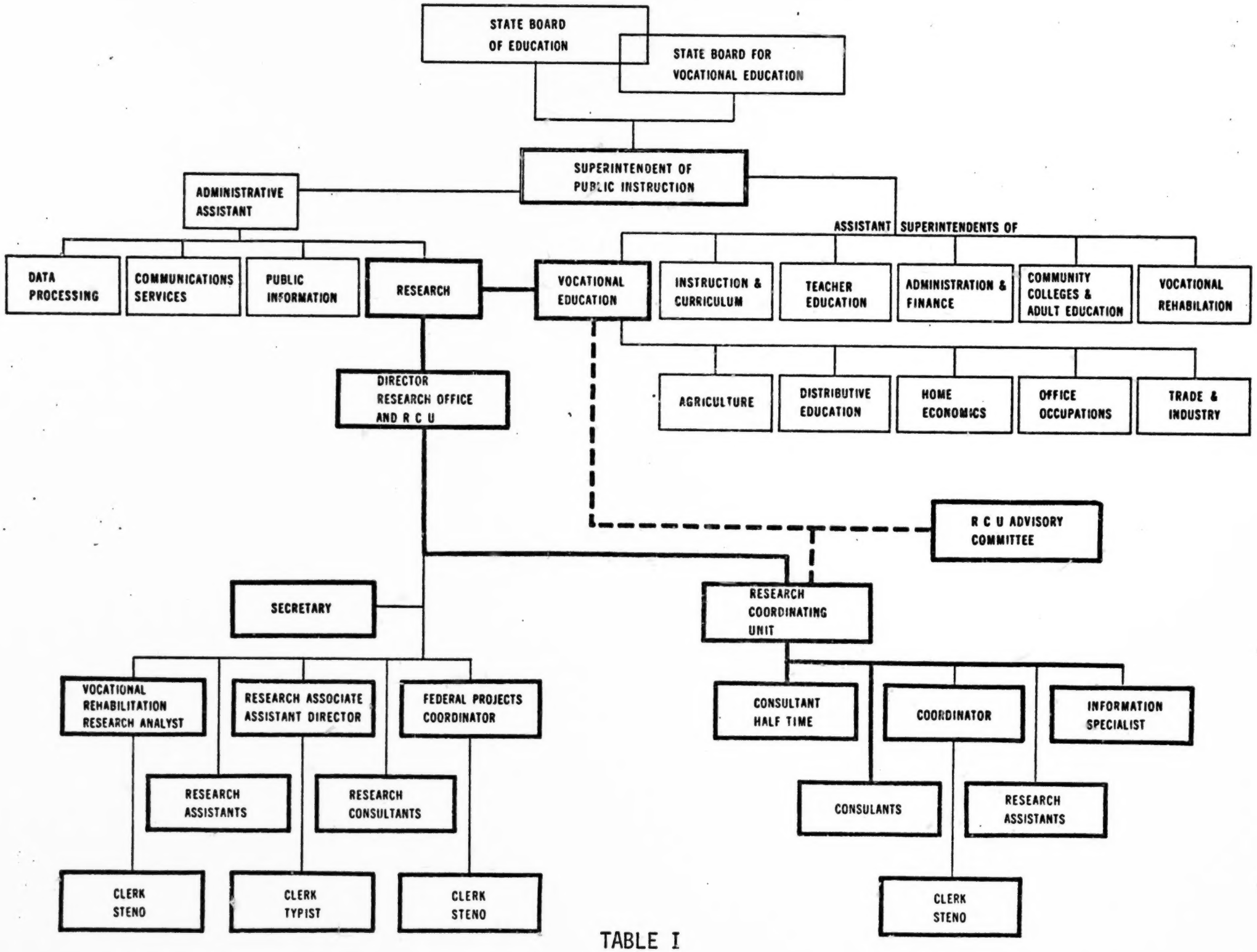
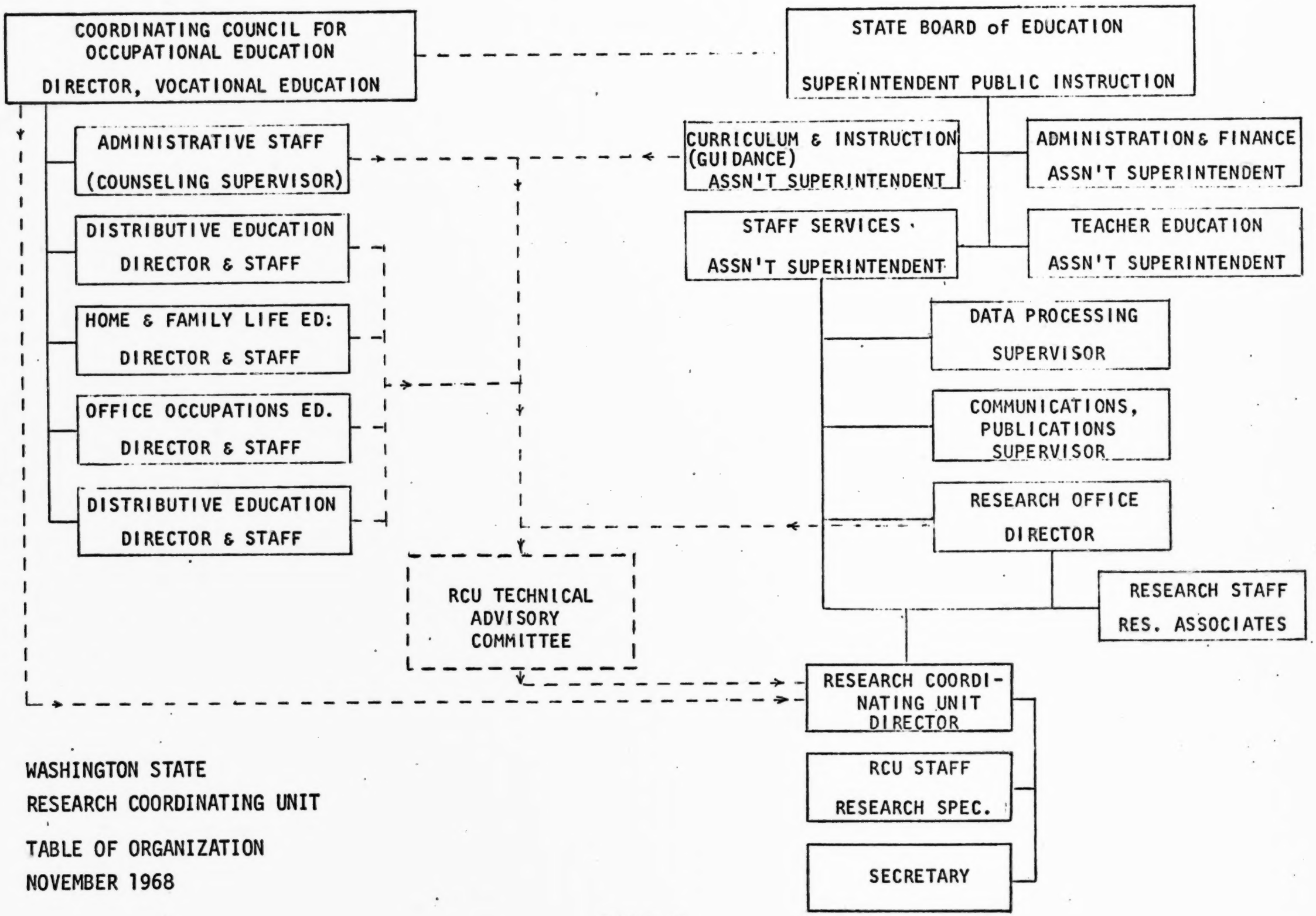


TABLE I



WASHINGTON STATE
RESEARCH COORDINATING UNIT

TABLE OF ORGANIZATION
NOVEMBER 1968

TABLE II

STATE OF WASHINGTON

ELECTORATE

GOVERNOR

LOCAL SCHOOL DIRECTORS

SUPERINTENDENT OF PUBLIC INSTRUCTION
LOUIS BRUNO

STATE BOARD FOR COMMUNITY COLLEGE EDUCATION

STATE BOARD OF EDUCATION

COMMUNITY COLLEGE SYSTEM
A. A. CANFIELD — DIRECTOR

COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION

Jean Bakke	Mark E. Hoehne, Chrm.	Helen Radke
Max Benitz	Stanley M. Little, Jr.	Ruth Shepherd
George P. Duecy	David G. McIntyre	Lloyd Wilson

Ex Officio: Director of Community College System
Superintendent of Public Instruction

STATE ADVISORY COUNCIL
Dr. William Conte
Mrs. Maxine Daly
Russell Dore
J. Alan Duncan
Dr. Angelo Giaudrone
Robert M. Gifford
Walter C. Hundley
Mrs. Harriet S. Jaquette
Rex D. Jones
H. M. Olsen
Harold Petrie
Stanley Smartlowit
Austin St. Laurent
Dr. Glenn Terrell
Dr. Robert J. Wallenstien
Daniel B. Ward
Marion E. Wilson

STATE DIVISION OF VOCATIONAL EDUCATION
ERNEST G. KRAMER — Director and Executive Officer

COMMUNITY COLLEGE VOCATIONAL EDUCATION STAFF
Richard Moe
Henry Polis
Ruth Jacobson

Contract Services

Contract Services

SUPERINTENDENT OF PUBLIC INSTRUCTION VOCATIONAL EDUCATION STAFF
James Blue
Phil Medgard
Ken Owen
Nancy Johnson

Program Planning and Research
Frank Wimer
- George Pilant
- Larry Flinn

Professional Services
Archie G. Breslin
- Steve Bishopp
- Alex Crewdson
- Shirley Caldwell
- Marianne Andrews, H.E.
- Margie Lowrance
- Louisa Liddell
- Hap Schaer, T & I
- Dorothy Asplund
- Guid.

Program Development
Dean Wagaman
- Ag — Bert Brown
- Art Nelson
- Bob Corless
- Jay Wood
- John Munn — Bus. and Off.
- DE — K. Otto Logan
- LeRoy McCartney
- Dennis Coplen

Program Administration
Dennis Roley
- Lyle Goodrich
- Hal Gardner
- Wally Thoemke
- Hal Anderson
- Con Chamberlin
- Mary Hillaire
- Ralph Dever
- Ed Gonyaw
- Emory Kramer

TABLE III

STATE DIVISION OF VOCATIONAL EDUCATION

METHODS

The role of the RCU was seen as being parallel to that of the larger organization of which it was a part. The Research Office of the Superintendent of Public Instruction attempted a new definition of research for a state agency, namely, having as its prime goal the improvement of instruction in the classrooms of the State of Washington. The usual role of data bank or statistics unit was carefully avoided in order to maintain a unique posture devoted to instructional improvement. The RCU attempted to follow this concept insofar as it was compatible with stated goals of the unit, and the goals of vocational education as spelled out in the State plan.

The overall goals or objectives of the RCU as stated in the proposal for continuation were:

> To stimulate, encourage, and coordinate vocational education research and development activities within the State in order to more effectively meet the special vocational needs of youth and adults; to serve as a statewide agency for the collection and dissemination of research findings and to provide assistance to all institutions and agencies concerned with research and development activities in occupational education.

More specifically, in order to meet its objectives, the unit was to function in such a manner as to:

1. Stimulate and coordinate vocational education research being conducted within the State and to relate such research to that being conducted outside the State.

2. Serve as a state-wide clearinghouse of occupational education research information, an acquisition source for the ERIC system, and a dissemination agency for research materials.

3. Design state-wide research projects and activities that may assist local schools in the improvement of vocational education programs.

4. Stimulate activities which will result in increased interest and competence in research such as encouraging pre-service and in-service training of occupational education researchers.

5. Identify and maintain an inventory of available occupational education research and development resources in light of the anticipated needs and programs within the State.

6. Provide research consultant service to agencies, institutions, and individuals throughout the State for small grant research.

7. Participate in the development, monitoring or conduct as appropriate, of occupational research and development projects.

8. Survey available data on employment opportunities, emerging occupation trends, and future job projections, as a base for planning vocational programs within the State.

9. Work with the State Board of Education, State Board of Community Colleges, and the Coordinating Council for Occupational Education in their research and development activities, as they pertain to vocational education.

10. Identify issues and problems relating to the nature and place of vocational education in the state school system and determine the contribution which vocational research and development can make in solving them.

As could be expected these goals were met with varying degrees of success. While much emphasis was placed in some areas, others proved to be beyond the scope of the unit.

DISCRETIONARY AWARD PROGRAM

The concept of contractual funding was exploited by the Washington State RCU before it became an official ramification of Federal funding as the discretionary award program. Much of the activity of the unit centered about this function.

The award program was implemented by requesting educational agencies throughout the State to submit proposals for experimental, developmental, or pilot programs. Projects were selected and funded on the basis of their anticipated contribution of workable solutions to current problems. Specific attention was given projects which provided means for the dissemination and implementation of research findings. Every attempt was made to select projects that could show an immediacy of results and have a broad range of visibility and appeal. An advisory committee evaluated proposals submitted to the unit and made recommendations for discretionary awards. The committee had members representing both the Office of the Superintendent of Public Instruction and the Coordinating Council for Occupational Education.

Many proposals were rejected because they did not seem to meet stated specifications, and not all funded projects demonstrated a high degree of success. However, most of the efforts resulting from granting awards for research did contribute to the advancement of vocational education in the State.

A final report was expected as a result of each discretionary award. Often the report took the form of a curriculum guide, teaching aid, or some form other than simply a "report" of activities. The results of all projects are on file in the RCU Library.

Following is a selected list of projects completed as a part of the discretionary award program. These were thought to have contributed most to vocational education, and have the widest applicability. Complete reports are on file in the RCU Library.

1. A study to Determine the Feasibility and Content of an Agri-Distribution Program in Community Colleges.

   The first project with which the Coordinator became involved was concerned with Agri-distribution and was conducted at Big Bend Community College, Moses Lake, Washington.

   Population estimates foresaw a doubling of the number of people in the Big Bend Community College service area in twenty years, based on agriculture alone. Any non-agricultural development will add to this projected increase.

   Although about one-third of the business contacted offered some kind of training to their employees, better than half saw a need for more of a type beyond their capabilities to provide. Most frequently mentioned were courses in general business, customer relations, selling, and economics.

   Among employees, a felt need existed for additional training, in that four of five of those interviewed expressed such a desire. About 60% of the courses suggested were directly related to job improvement, and most could be offered in a community college.

   The results of the survey were clearly a mandate to provide more agri-business courses at the community college level.

2. Airplane Assembly Mechanics Training Program Follow-Up.

   A follow-up of aircraft mechanic trainees was completed. The training program was undertaken jointly with the Boeing Company on a crash basis when the demand for assembly mechanics outstripped the available supply and the company's ability to train more in their own facilities. High school seniors in eighteen schools participated in the program on their own time.

   At the same time the Research Coordinating Unit was conducting their survey, the Boeing Company was involved in an analysis of comparative costs of training mechanics through the cooperative program, and through in-house training.

   The objective of the Research Coordinating Unit investigation was to determine how many trainees had been

and were employed in the occupation for which they had been trained. Data were collected from slightly more than half of those who enrolled in the program, and 64% of the respondents had worked or were working for the Boeing Company. At the time of answering the questionnaire 58% of the respondents were in the armed forces or in some kind of educational institution.

Conclusions were drawn that the program had been successful, but that a more careful selection of trainees was needed. The Boeing report concurred in that training costs were found to be much less in the cooperative program than in their own training center.

3. Mercer Island Vocational Education Needs Analysis.

Mercer Island is a community adjacent to Seattle with little business or industry. Most residents come from middle to upper income families with the head of the household working in Seattle. The school district offered no vocational program, although there has been a growing awareness of a need for this type of curriculum. The Research Coordinating Unit contracted with the district to analyze the vocational education needs of non-college bound students in a college preparatory setting. Three similar suburban, basically college-oriented communities were included in the study.

In conjunction with this study a follow-up of former students was conducted in order to have a more comprehensive view of the situation. Although a high percentage of high school graduates do go on to college from this district, a significant number do not.

As a result of this study, a more vocationally-oriented administration has introduced two new courses, hired a vocational director and is considering an innovative, exploratory course in vocations.

4. An Analysis of the Needs of Non-College Bound Students in a Rural Public High School of Six Hundred Enrollment.

This project was conducted because of the similarity of basic purpose with the Mercer Island Project, but within a totally different setting. Whereas one dealt with a big city, suburban situation, the other was oriented to a rural, small town setting.

The Quincy Project rapidly expanded beyond the original horizons envisioned by the project director and the Research Coordinating Unit Coordinator. The entire staff of the school districts became involved directly and indirectly as well as personnel from neighboring

districts. If nothing else, the staff gained a degree of vocational orientation that probably could not be duplicated elsewhere in the State.

Part of the project called for 15 faculty members from various levels and disciplines in the district to act as a committee to explore all facets of the needs analysis. Part of their commitment was participation in a course in Principles of Vocational Education. It was gratifying that a total of 53 persons signed for the course, including some interested citizens not connected with the schools.

The project involved surveys of present and former students, business and industry and the community as a whole. Recommendations included an expanded vocational program with diversification away from the traditional agricultural emphasis of the past.

Considerable state-wide attention focused on the Quincy project and particularly the director. As a consequence, he was hired to head the vocational agriculture program at one of the larger community colleges in the State.

5. Vocational Appreciation in the Elementary Schools.

The Yakima Public Schools' Vocational Director was given a grant to conduct a pilot study, the objectives of which were to: (a) determine what concepts regarding vocational readiness and appreciation might be appropriate and meaningful for children at the 4th, 5th, and 6th grade level; (b) study the various community resources in relation to an elementary school vocational appreciation program; (c) provide guidelines as to ways in which vocational appreciation might be incorporated in the main stream of the elementary school curriculum; and (d) provide significant experiences for the 30 children who participate in the program in relation to vocational appreciation. This project began June 10, 1968,with the children's participation ending July 19, 1968.

Following the portion of the project involving pupils, a series of evaluation conferences were held to determine what was worthwhile and what was not, in terms of the objectives of the project. Following this phase, an in-service training program was held to disseminate results. Representatives from all elementary schools in the Yakima District were in attendance, as well as many from surrounding districts.

As a side value, several classroom projects and guides were developed by teachers receiving the in-service training. Many of the summer activities have been incorporated into the regular school year program.

The second phase of the Vocational Appreciation Project was undertaken during the summer of 1969, this time involving boys and girls from the first three grades. The program was much the same as that of the first phase except that no overnight activity was undertaken. Because of the ages of the children involved, additional adult help was used on the field trips and in the classroom. Follow-up and in-service activities will be undertaken by the district in conjunction with this project, during the fall of 1969.

6. Operation Help.

A project to help chronic failures and potential dropouts, this may prove to be the most worthwhile endeavor of the RCU. Newport School District is located in the northeast corner of the State and can be classified as having a remote but necessary high school. The area is mountainous, and forest related occupations are the base of the economy. It is considered an economically depressed area.

Of those former students who remained in the area, most became involved in some way with logging and related activities, and most could be considered unskilled. This group also represented to some degree, those who had been least successful in school.

Operation Help was a program begun in September 1968, as a pilot effort, to take a group of boys identified as potential dropouts and failures, out of the typical classroom situation, and into one that could more fully exploit their potentials. The base of their program was shop and field experiences that would give them necessary skills for employment in the woods. Ungraded classroom subjects were kept to a minimum and related to their basic program.

The school district already owned a tract of land of many acres that was used in the project as a tree farm and experimental station. In addition the Federal Forest Service deeded a smaller tract of land to the district for development into an arboretum. This acreage is within the town limits and will, in effect, become a park for community use.

For the most part the project was successful beyond expectation. One boy dropped out of school before the end of the year, but the remaining eleven learned skills that could get them employment on graduation from high school (not all were seniors). More important perhaps, all seemed to have gained a great deal in terms of a sense of personal worth. For the first time in their

lives some of them had achieved success and esteem in the eyes of their peers. Significantly, the name of the project was misinterpreted, in that the boys assumed that a part of their responsibilities was to "help" the school, which they did in many ways. They wore their hard hats and coveralls with pride and as a mark of distinction. An indication of the response of other students can be deduced from the fact that the administration received a great many requests for admittance to the program after it was underway.

At the conclusion of the project it was determined that continuation and expansion was imperative. To this end the RCU evaluation committee provided a grant whereby a team worked during the summer of 1969 developing a program to begin that fall. The original concept of Operation Help was to be continued with improvements, and a companion program for girls in distributive education was scheduled. In addition an interdistrict cooperative program would be launched, involving students from a district that was even more remote and economically depressed. The latter district included Indians from a nearby reservation in its student body. Interagency funding for this project will be a future effort of the RCU.

Operation Help has attracted considerable attention throughout this area. The Northwest Regional Educational Laboratory, Portland, Oregon, plans a monograph on the project, and it will be a featured article in the State Superintendent's official publication.

7. An Experimental Program in Career Planning for Ninth Grade Students.

This project was undertaken by the Mercer Island School District which had no program of career planning other than college preparation. The generally high socio-economic level of the community was undoubtedly a factor in this situation. A survey showed that, contrary to accepted belief, about 34% of the students who had graduated from the local high schools in recent years had not gone on to college.

In the belief that career oriented programs should start before a student enters high school, this project was aimed at the junior high student. Because students in the 9th grade general mathematics classes seemed to be disoriented as to long range plans and goals they were chosen for this experimental program.

South Mercer Junior High School lent itself to this project in that it had been wired for closed circuit

television at the time it was built. Some equipment was already available and the rest was leased. The general objective was to video-tape a series of interviews with persons in a variety of occupations that offered job opportunities. The innovative feature was that 9th grade students chose the occupations, contacted the persons to be interviewed, did the interview, operated the video equipment, edited it, and prepared a final program.

Several students from the University of Washington acted in an advisory capacity, as did teachers at the school. English classes particularly were oriented to the project, but generally it gained school-wide interest.

Originally the plan was to make a number of occupations more meaningful to these 9th grade students and at the same time make their findings available to the entire student body of the school and the district. Probably more important, the project sparked these involved students to attain higher academic achievement and gave them a feeling of accomplishment they may not have experienced before.

Another unexpected result was that the 9th grade students who worked on the project were rather dramatically motivated toward electronics, radio, and video occupational goals. Interestingly, some of the graduate students from the University, made changes in their programs because of their association with the project.

The school district will continue to support the program in the coming year. However, because of the interest generated, several classes will be taught in this and related areas instead of just one.

8. Synthesis of Distributive Education Teaching Methods And Materials.

The major objective of this project was to ascertain outstanding teaching methods and materials being used in distributive education classrooms of the State. Secondary and post-secondary teacher-coordinators were asked to submit abstracts of the outstanding teaching methods they had employed in their classrooms during the past year, to the Distributive Education Office at Eastern Washington State College. There the abstracts were screened and synthesized into two documents that were then distributed statewide to all D.E. teachers. The volume of secondary level materials contained 171 pages, and the post-secondary volume 44 pages.

Future plans will include a procedure for continuous

updating of the compilations by including new materials and eliminating that which was found to have limited use or proved not to be successful beyond its point of origin.

9. Survey of Family Life and Sex Education Programs in Washington Secondary Schools.

This project was undertaken by the Home Economics Department of Central Washington State College.

Events during the past year sharply point up the need for a thorough study of family life and sex education as it occurs in the secondary schools of Washington. The attacks on such programs, have focussed public attention upon this controversial issue and challenge educators to re-evaluate what is being done in the name of family life and sex education.

The central purpose of this study was to measure the incidence and nature of family life and sex education in Washington secondary schools. No attempt was made in the survey to designate and separately define family life education and sex education, though these two are obviously not synonymous. However, the content analysis of programs provided by teachers in the study makes it possible to describe which of these, and to what degree, is emphasized in each of the subject matter areas involved.

A secondary purpose of this study is to provide a starting place for an attempt to develop a coordinated and more comprehensive approach to this subject for the secondary schools in Washington State.

This study was conducted under the following procedure.

a. A questionnaire survey of all secondary school principals, requesting a list from them of their teachers engaged to some extent in family life and/or sex education, together with pertinent information regarding any such programs in their school.

b. A questionnaire survey of the teachers designated by the principals to ascertain their qualifications, their needs, fears, and concerns, and a description of what they do under this heading.

c. An on-the-spot study of four schools where there appear to be truly creative programs of family life and sex education, including interviews with school principals and others to gain some measure of community and staff attitude about the expansion of educational services in this area.

Specifically, the information sought and its utilization may be outlined under three major headings:

a. What now occurs.
   (1) in which schools.
   (2) in which departments
   (3) the preparation and qualifications of the teachers.
   (4) the scope and nature of the content of units and courses.

b. Reactions to what is occurring.
   (1) teacher's evaluations.
   (2) administrative reactions.
   (3) parent and community response.

c. Suggestions about what should occur.
   (1) hopes and plans of teachers.
   (2) administrators' fears, concerns, and aspirations.
   (3) investigators' recommendations.

Conclusions drawn from the study were that family life and sex education programs have been conducted in numerous Washington communities for many years. Only recently, however, has there been a rapidly increasing concern for their full development and implementation. As a result various academic disciplines and program developers have established such programs, some of them admittedly without adequately careful planning.

It is time for a concentrated and coordinated approach to the subject. The need is too great and the task far too complicated to continue the isolated, hit-and-miss programs which now exist. No single academic discipline or subject area is capable of providing the entire program. Health education and home economics, the two major contributors at present, both have significant roles to play, but neither is qualified to go it alone. If a truly significant opportunity in family life and sex education is to be offered to the students in the State of Washington, it is imperative that the personnel in these two areas, and others who may be involved, implement an integrated and coordinated program in the schools. No state has yet done this. There is no reason why Washington should not be first.

PUBLICATIONS

In addition to reports and materials resulting from discretionary awards, several publications of importance have been developed either by hiring consultants to prepare them or providing funds for preparation and printing of existing materials.

1. In the preceding grant period a major curriculum development in distributive education was completed titled, A First Look At Distribution. Subsequently, a companion volume, Participation Experiences, was published. The 80-page booklet provides ideas and suggestions for teachers that could develop a high level of motivation in students through realistic and interesting activities.

2. In cooperation with the Agriculture Department of Washington State University, a 212-page teaching aid was developed titled, Crop and Weed Identification. The book consists primarily of transparency masters and some explanatory text. It has been well received both in this and other states. A survey of agriculture teachers is contemplated to determine the extent to which the volume is being used.

3. A Handbook for Supervisors of the Disadvantaged and a Teachers' Guide were printed at Research Coordinating Unit expense for national distribution. These documents were not developed by the Research Coordinating Unit, but were considered so worthwhile as to warrant greater exposure than had been originally planned. Basically these are an effort to prepare supervisors for distributive education students when the students fall in the general classification of disadvantaged.

4. Five, half-hour films were created from video tapes made at a three-day conference partially supported by the Research Coordinating Unit. These are available for use in the State. Three of the films are Desmond Cook's presentation of PERT, and two are of Arthur Coladarci of Stanford.

DISSEMINATION ACTIVITIES

The dissemination responsibilities of the unit were improved during the course of the project. Although the Research Coordinating Unit does not publish a newsletter, it receives exposure through the recently developed newsletter of the Division of Vocational Education. The Research Coordinating Unit is invited to contribute to each issue. In addition, the RCU contributes to the official publication of the Superintendent of Public Instruction, Your Public Schools.

Final reports of significance are distributed nationally to Research Coordinating Units, State Directors or other key persons, and state-wide to selected vocational personnel. The Coordinator evaluates and screens reports in an attempt to reduce the proliferation of materials being disseminated from various sources, much of which has limited value.

As practioners became aware of the Research Coordinating Unit Library, its use grew. Although State personnel were prime users,

educators at the local level were beginning to make use of the material. The library had close to 1000 volumes at the end of the grant period. All documents were key-word indexed through the computer center.

The Research Coordinating Unit has a complete file of microfiche. Studies are underway to determine the best possible use for the material. The unit has a reader-printer, but indications are that a microfiche duplicator might be advisable considering the cost of print-outs from the reader-printer.

Requests for information and materials from individuals both in the State and nationwide have increased. The Research Coordinating Unit was able to meet these requests.

STATE WIDE FOLLOW-UP SYSTEM

The RCU was responsible for developing a statewide follow-up system of students exiting from vocational programs. This system, with modifications has been adopted by several states, and Washington is looked upon as a leader in this field.

The RCU does not administer the program, but was frequently called upon to act in an advisory capacity concerning its operation. Future RCU activities would include exploration of ways to exploit follow-up data to a greater extent.

OTHER ACTIVITIES

The RCU is represented at numerous state and national conferences, and workshops concerned with research in vocational education, and the director frequently was a consultant, group leader, or panelist at these meetings. The RCU actively supports the Puget Sound Educational Research Council, made up of research personnel representing all levels and areas of education.

In April 1968, the Research Coordinating Unit sponsored in part a research workshop or seminar in cooperation with the Office of the Superintendent of Public Instruction and the Puget Sound Education Research Council. This three-day meet titled, Educational Research, People and Processes, was aimed primarily at researchers in local and intermediate districts. Headline participants included Arthur Coladarci of Stanford and Desmond Cook of Ohio State.

The Western Regional RCU Directors' Conference was sponsored by the Washington RCU in Seattle, August 1969. The major thrust at this meeting was follow-up procedures and information dissemination. Future activities resulting from this meeting will be interstate efforts to standardize follow-up procedures and develop more comprehensive information systems.

The Director was a consultant on several projects not directly involving Research Coordinating Unit personnel or funds. He occasionally lectured to Community College and University classes concerned with vocational education.

RESULTS

As in any situation, the Research Coordinating Unit achieved considerable success in some areas, less in others and failed in some. The greatest gains were made through the discretionary award program. After approval, only one project failed to be completed and no funds were granted. Most all projects had measurable results on the positive side, and some had far-reaching impact. Occasionally, the most important contribution was a change of attitude for, or increased awareness of vocational education by non-vocational school people or the public in general.

In the area of information retrieval, storage, and dissemination, the RCU started slowly but gained momentum, and ended with a fairly substantial body of library material and a complete ERIC file. Dissemination was limited in scope mainly because not enough time could be devoted to the effort. Attempts to increase usage of information materials were not particularly successful.

Through attendance and participation in workshops and conferences, the director increased his background of knowledge tremendously, which was reflected in increased output from the RCU. Gaining insight into one's own problems by examining others, the RCU was able to avoid considerable trial and error procedures.

Coordination of research activities in the State was not successful. Lines of communication could not be developed, and there seemed to be considerable resistance to any effort to centralize information about research projects. Again, the problem was compounded by lack of time or personnel to work on it. Reorganization of the administration of vocational education at the State level may improve the situation.

The RCU in a consultant capacity could not have been extended without additional personnel. Occasionally, persons were hired to work in this area. Future activities should include expansion of this concept.

In-house research was minimal simply because the press of other activities precluded it. A study was made of vocational education at the post-secondary level and this analysis was used by legislators in their deliberations. A statewide evaluation of the ornamental horticulture industry was undertaken, in order to determine educational needs in the field. Several data gathering instruments were designed for use in other studies, but on the whole, in-house research was limited.

CONCLUSIONS

This report has attempted to reflect the scope of activities of the Washington State Research Coordinating Unit during its four years of existence and more specifically in the last 29 months, under a second grant from the U.S. Office of Education. In general terms, the accomplishments of the RCU justify the funds expended in pursuit of the goals of the unit. In retrospect these goals were undoubtedly too broad and as a result were met with varying degrees of success. In order to have met all stated goals or objectives, the RCU would have needed additional personnel. To operate most effectively, evidence would indicate that the RCU cannot be a one man operation.

The activity having greatest impact was the discretionary award program. It would seem conclusive that the future of the RCU lies in this direction.

Strengthening the information service features of the unit would appear to be necessary in continuing the operation of the RCU. Especially important is the need to expand use of facilities and materials available. Making vocational education personnel at the local level aware of the potential of information services should have high priority.

Next to the limitations imposed by a personnel shortage, the RCU encountered its greatest constraint in not being able to establish better lines of communication with the State's vocational education community. In part, this problem stems from the fact that the RCU was never directly within the vocational education organization. This did provide a vantage point of objectivity that might have been lost otherwise, but lack of communication probably outweighed this advantage. The RCU will be an integral part of the State vocational education administration in the future and the communication problem may be resolved.

The importance of a research arm for vocational education at the State level cannot be minimized. The RCU has contributed to the expansion and improvement of vocational education in the State through research and development activities. It has provided the means whereby educators at all levels could perform research projects. The unit has established a center for gathering, processing, and disseminating vocational research information, and provided consultant services to help solve problems through research. The RCU has contributed to more efficient and effective vocational education in the State of Washington.